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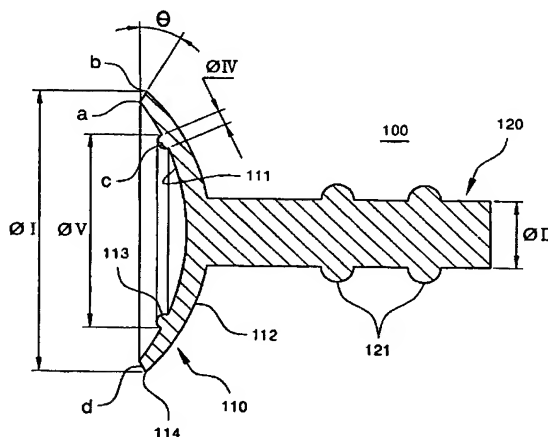
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tion II

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(54) Title: A SUCKER WITH AN ANNULAR PROJECTION ON ADHESION SURFACE AND ADHESION ARROW HAVING THE SUCKER



(57) Abstract: The present invention relates to a sucker and an adhesion arrow having the same. More particularly, the present invention provides a sucker that can be attached, instead of a needle, to an arrow for a toy arrow shooter. The sucker of the present invention is formed with an annular projection on an adhesion surface of the sucker. Thus, even when the sucker collides against a target at a high speed, the sucker can be prevented from bouncing back from the target due to a repulsive force generated from the collision and thus securely adhere to the target. Further, even though the sucker of the present invention flies and collides against the target at a certain angle, the sucker can easily adhere to the target. Further, the sucker is made of a soft material so that a repulsive force can be smaller than an adhesion force when the sucker collides against the target. When a user shoots the adhesion arrow of the present invention by blowing it received in a shooting tool, the sucker is not caught by an inner circumferential surface of the tubular shooting tool so that the adhesion arrow of the present invention can be easily shot.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC7 F41B 1/00, F41J 3/00, A63B 63/00, 71/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC as above

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
KR, JP: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
New Patent and Utility Model Search System(KIPO): dart, blow, toy, stick, adhere, arrow, archery

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,537,176(David M. Stravitz) (Aug. 27, 1985) (Lines 46 - 48 in Para. 2, Figs. 15, 16, 28)	1 - 3
A	US 3,954,266(Andrew J. Carrano) (May 4, 1976) (Lines 61 - 68 in Column. 3, Lines 1 - 19 in Column 4, Fig. 8)	3
A	US 3, 997,162(Francis E. Scullin) (Dec. 14, 1976) (Figs. 4 - 7)	4

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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US 4,537,176

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